

For WebEx Participants

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Western
Area Power
Administration

Intertie and Parker-Davis Projects 10-Year Plan Meeting

October 30, 2019

Desert Southwest Region
Phoenix, AZ



WELCOME & INTRODUCTION



AGENDA

1. Welcome & Introduction
2. Draft to Final 10-Year Plan Walkthrough
3. Final 10-Year Plan
4. Final 10-Year Plan Rates Analysis
5. Prepayment Vote Preview



Draft 10-Year Plan

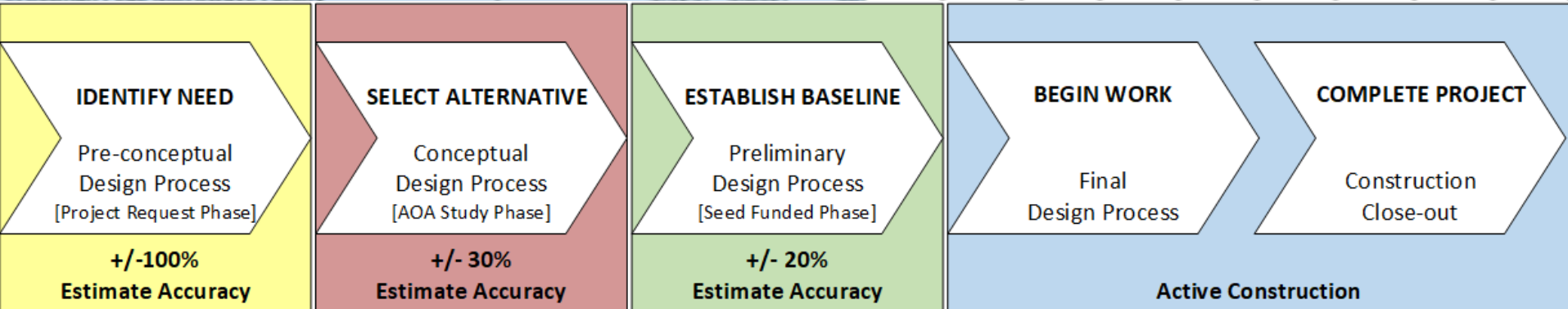
PROJECT	TOTAL BUDGET	FY19	FY20	FY21	FY22	FY23	FY24	FY25	FY26	FY27	FY28	FY29
Tucson Substation Rebuild	9,836	80										
Gila-Knob 161-kV Reroute	3,707	8										
Black Point Mesa Reroute	2,262	28										
Parker-Davis Facility Rating Year 2	7,711	50										
Crossman Peak Microwave Facility	4,525	3,032	50									
Gila Substation 161-kV Rebuild	22,291	1,344	1,637									
Liberty Series Capacitor Bank Replacement	10,372	2,622	76									
Gila-Wellton Mohawk Interstate-8 Crossing Rebuild	7,520	196	26									
Coolidge-Valley Farms 115-kV Rebuild	3,350	1,536	719	50								
Dome Tap-Gila 161-kV Rebuild	7,630	2,328	1,126	2								
Kofa-Dome Tap 161-kV Rebuild	5,511	350	4,000	851	50							
Bouse Upgrade Project	45,088	459	1,000	18,128	14,711	835	7,659	1,939				
Bouse-Kofa 161-kV Rebuild Phase-1	13,260		407	7,172	5,132	456						
Bouse-Kofa 161-kV Rebuild Phase-2	13,260		500		7,172	5,132	456					
Parker-Blythe 161-kV #2 Rebuild Phase-1	18,542				237	17,336	805	164				
Parker-Blythe 161-kV #2 Rebuild Phase-2	18,542				237		17,336	805	164			
Parker-Blythe 161-kV #2 Rebuild Phase-3	18,542				237			17,336	805	164		
Parker Substation 161-kV Replacements	16,850							300	8,000	7,700	850	
Blythe-Headgate Rock 161-kV #1 Rebuild	23,900							1,195	9,560	11,711	1,434	
Parker Substation 230-kV Replacements	12,100								600	2,000	9,900	500
Gila Substation 69-kV Rebuild	10,500									800	6,050	3,200
Gila-Knob 161-kV Remaining Rebuild	23,000										800	16,700
Gila Substation 34.5-kV & 14-kV Rebuild	15,250											500
FISCAL YEAR (FY) TOTALS		12,033	9,541	26,203	27,776	23,759	26,256	21,739	19,129	22,375	19,034	20,900

- Draft 10-Year Plan presented July 15, 2019



10-Year Plan Color Coding

PROJECT	TOTAL BUDGET	FY19	FY20	FY21	FY22	FY23	FY24	FY25	FY26	FY27	FY28	FY29
Tucson Substation Rebuild	9,836	80										
Gila-Knob 161-kV Reroute	3,707	8										
Black Point Mesa Reroute	2,262	28										
Parker-Davis Facility Rating Year 2	7,711	50										
Crossman Peak Microwave Facility	4,525	3,032	50									



Parker-Blythe 161-kV #2 Rebuild Phase-2	18,542				237		17,336	805	164			
Parker-Blythe 161-kV #2 Rebuild Phase-3	18,542				237			17,336	805	164		
Parker Substation 161-kV Replacements	16,850							300	8,000	7,700	850	
Blythe-Headgate Rock 161-kV #1 Rebuild	23,900							1,195	9,560	11,711	1,434	
Parker Substation 230-kV Replacements	12,100								600	2,000	9,900	500
Gila Substation 69-kV Rebuild	10,500									800	6,050	3,200
Gila-Knob 161-kV Remaining Rebuild	23,000										800	16,700
Gila Substation 34.5-kV & 14-kV Rebuild	15,250											500
FISCAL YEAR (FY) TOTALS		12,033	9,541	26,203	27,776	23,759	26,256	21,739	19,129	22,375	19,034	20,900

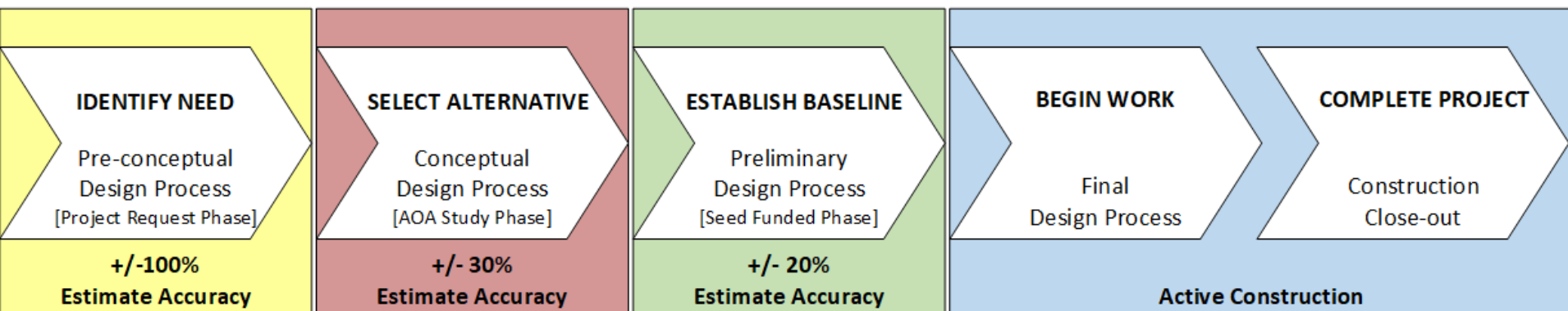
- As a reminder, the 10-Year Plan is color coded for the following criteria
 - Yellow – Project Request Phase – Pre-conceptual Design Process (+/-100% accuracy)
 - Red – AOA Study Phase – Conceptual Design Process (+/-30% accuracy)
 - Green – Seed Funded Phase – Preliminary Design Process (+/-20% accuracy)
 - Blue – Active Construction Phase – Final Design Process, Construction, and Closeout



Fiscal Year 2019 Completed Projects

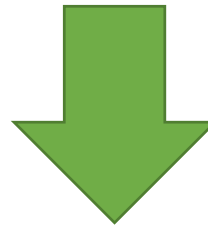
PROJECT	TOTAL BUDGET	FY19
Tucson Substation Rebuild	9,836	80
Gila-Knob 161-kV T-Line Reroute	3,707	8
Black Point Mesa Reroute	2,262	28
Parker-Davis Facility Rating Year 2	7,711	50

- The projects listed above were completed in FY 2019 and are now removed from the 10-Year Plan for FY2020-2029

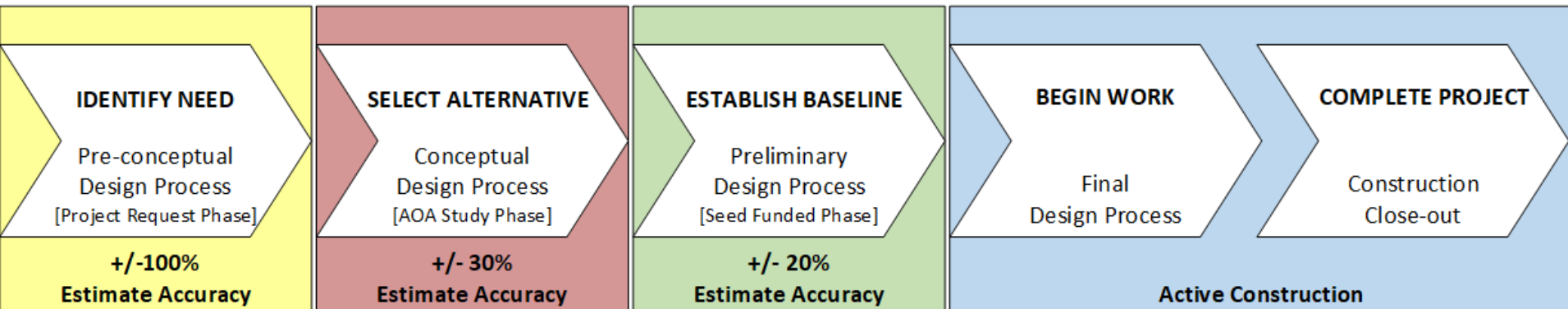


Crossman Peak New Microwave Facility

PROJECT - Q2 DRAFT	TOTAL BUDGET	FY19	FY20
Crossman Peak Microwave Facility	4,525	3,032	50



PROJECT - Q3 FINAL	TOTAL BUDGET	FY19	FY20	FY21	FY22
Crossman Peak Microwave Facility	4,525		170	2,534	333



Crossman Peak New Microwave Facility

Project Status

- The project was placed on hold in December of 2018
- Since July, multiple options have been considered for providing power, including a combination of alternative power like solar and wind generation with battery storage
- No viable power plan has come to fruition, therefore, WAPA will pursue a new Analysis of Alternatives (AOA) study to explore alternate solutions for power and possible project siting changes
- WAPA will continue to pursue a solution to this project in order to meet the higher federal bandwidth requirement regulations enacted in 2010

Identified Risks

- Environmental concerns, power cost, project feasibility, cultural concerns, and land issues

Project Schedule

PROJECT MILESTONE	STATUS	DATE
Seed Funded	N/A	N/A
Approved for Funding	Completed	Q4 2016
Design Completed	Projected	TBD
Construction Mobilization	Projected	TBD
In-Service / Energization	Projected	TBD
Financial Closeout	Projected	TBD



Crossman Peak New Microwave Facility



FUNDING TYPE	ORIGINAL BUDGET	BUDGET ADJUSTMENTS	CURRENT BUDGET	COST TO DATE	REMAINING FUNDS	ADDITIONAL FUNDS REQUIRED
Prepayment	\$ 4,525,000	\$ -	\$ 4,525,000	\$ 1,487,794	\$ 3,037,206	
Appropriations	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
TOTAL	\$ 4,525,000	\$ -	\$ 4,525,000	\$ 1,487,794	\$ 3,037,206	\$ -
<i>*Cost = All Executions, Obligations, & Commitments Through 9/30/19</i>						

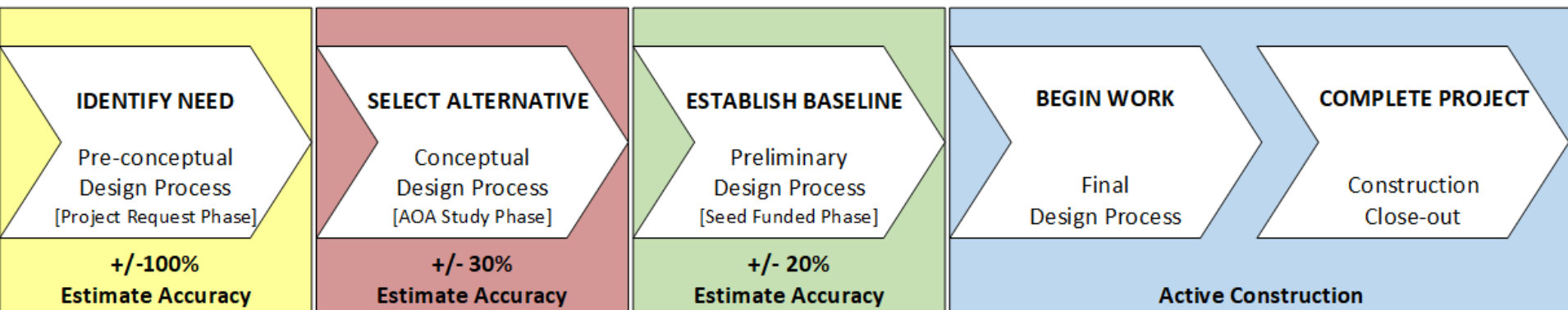


Gila Substation 161-kV Rebuild

PROJECT - Q2 DRAFT	TOTAL BUDGET	FY19	FY20
Gila Substation 161-kV Rebuild	22,291	1,344	1,637



PROJECT - Q3 FINAL	TOTAL BUDGET	FY19	FY20	FY21
Gila Substation 161-kV Rebuild	23,873		3,100	25



Gila Substation 161-kV Rebuild

Project Status

- The new control building should be completed in October 2019, and construction on the remainder of the project will continue through July 2020

Cost Increases

- The construction contract cost is ~\$2M above the independent government estimate
- There has been an increase in the cost of steel since the original estimate was produced
- Additional planning and earthwork is necessary to prevent runoff into the adjacent canal; the majority of that earthwork has been completed
- Project will require an additional \$4,878,500 to complete

Corrective Action

- WAPA proposes transferring \$3,536,000 in prepayments from other active projects to partially cover the cost increase and an additional \$1,342,000 will be required.

Project Schedule

PROJECT MILESTONE	STATUS	DATE
Seed Funded	N/A	N/A
Approved for Funding	Completed	Q4 2014
Design Completed	Completed	Q2 2018
Construction Mobilization	Completed	Q4 2018
In-Service / Energization	Projected	Q2 2020
Financial Closeout	Projected	Q2 2021



Gila Substation 161-kV Rebuild

Project Financial Summaries

FUNDING TYPE	ORIGINAL BUDGET	BUDGET ADJUSTMENTS	CURRENT BUDGET	COST TO DATE	REMAINING FUNDS	ADDITIONAL FUNDS REQUIRED	PROPOSED NEW BUDGET
Prepayment	\$ 12,000,000	\$ 3,313,487	\$ 15,313,487	\$ 17,066,845	\$ (1,753,358)	\$ 4,878,500	\$ 20,191,987
Appropriations	\$ -	\$ 3,681,013	\$ 3,681,013	\$ 3,681,013	\$ -	\$ -	\$ 3,681,013
TOTAL	\$ 12,000,000	\$ 6,994,500	\$ 18,994,500	\$ 20,747,858	\$ (1,753,358)	\$ 4,878,500	\$ 23,873,000
<i>*Cost = All Executions, Obligations, & Commitments Through 9/30/19</i>							

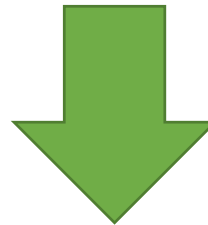
- As reported in the Q2 customer meeting, WAPA identified the need for additional prepayments
- Total project budget will increase from ~\$18.9M to ~\$23.8M
- With the transfer of available prepayment funding from other active projects, WAPA anticipates a net increase in prepayment funding of ~\$1.3M

PROJECT	FUNDS AVAILABLE FOR TRANSFER
Liberty Series Capacitor Bank Replacement	\$ 537,000
Coolidge-Valley Farms 115-kV Rebuild	\$ 807,000
Gila-Dome Tap 161-kV Rebuild	\$ 2,000,000
Kofa-Dome Tap 161-kV Rebuild	\$ 192,000
TOTAL AVAILABLE FUNDS FOR TRANSFER	\$ 3,536,000
ADDITIONAL FUNDS REQUIRED	\$ 4,878,500
TOTAL FUNDS AVAILABLE FOR TRANSFER	\$ 3,536,000
NET INCREASE IN PREPAYMENTS	\$ 1,342,500

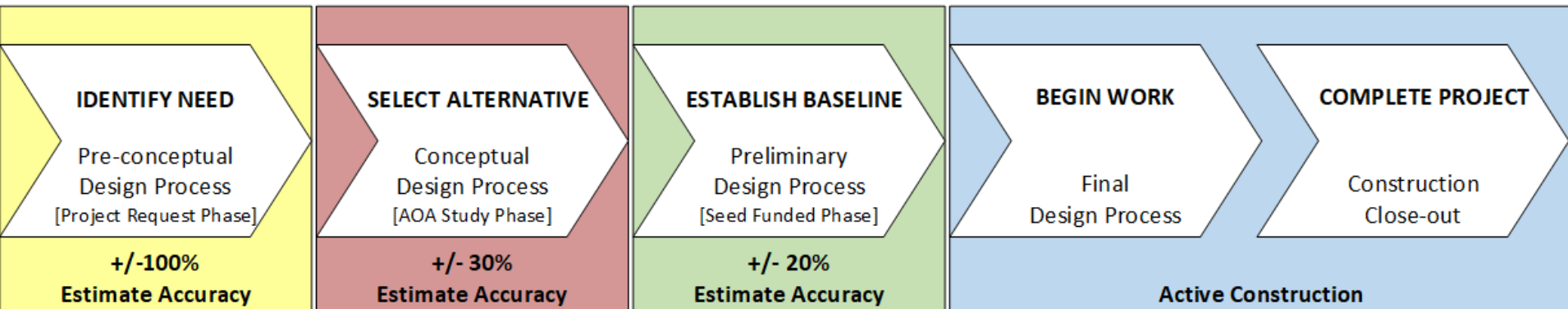


Liberty Series Capacitor Bank Replacement

PROJECT - Q2 DRAFT	TOTAL BUDGET	FY19	FY20
Liberty Series Capacitor Bank Replacement	10,372	2,622	76



PROJECT - Q3 FINAL	TOTAL BUDGET	FY19	FY20	FY21
Liberty Series Capacitor Bank Replacement	9,835		1,598	25



Liberty Series Capacitor Bank Replacement

Project Status

- The contractor started work in the fall of 2018 and shut down for the summer of 2019
- They re-mobilized in September 2019 under a 3-month planned outage to complete field activities
- The construction contract award and government furnished equipment costs were less than estimated, resulting in available additional funds
- WAPA will propose transferring \$537K to the Gila Substation 161kV to 230kV Rebuild Project

Identified Risks

- If the project is not completed, then the transmission line will be de-rated

Project Schedule

PROJECT MILESTONE	STATUS	DATE
Seed Funded	N/A	N/A
Approved for Funding	Completed	Q4 2016
Design Completed	Completed	Q1 2018
Construction Mobilization	Completed	Q4 2018
In-Service / Energization	Projected	Q4 2019
Financial Closeout	Projected	Q2 2020

*Revised 10/28/2019



Liberty Series Capacitor Bank Replacement



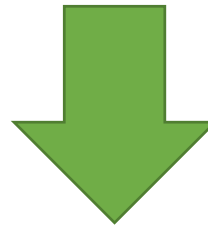
FUNDING TYPE	ORIGINAL BUDGET	BUDGET ADJUSTMENTS	CURRENT BUDGET	COST TO DATE	REMAINING FUNDS	ADDITIONAL FUNDS REQUIRED
Prepayment	\$ 10,372,000	\$ (6,233,826)	\$ 4,138,174	\$ 2,514,953	\$ 1,623,221	\$ -
Appropriations	\$ -	\$ 5,696,826	\$ 5,696,826	\$ 5,696,826	\$ -	\$ -
TOTAL	\$ 10,372,000	\$ (537,000)	\$ 9,835,000	\$ 8,211,779	\$ 1,623,221	\$ -

**Cost = All Executions, Obligations, & Commitments Through 9/30/19*

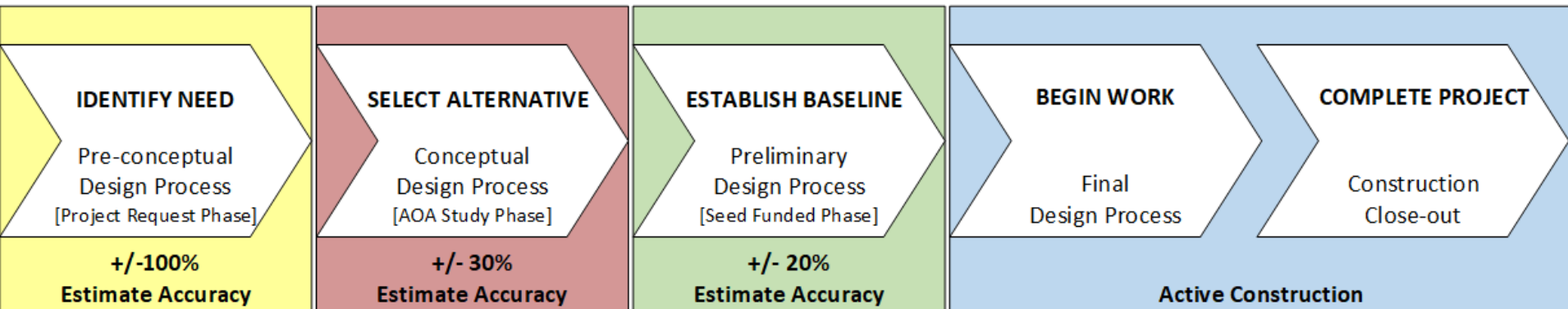


Gila-Wellton Mohawk I-8 Crossing Rebuild

PROJECT - Q2 DRAFT	TOTAL BUDGET	FY19	FY20
Gila-Wellton Mohawk Interstate-8 Crossing Rebuild	7,520	196	26



PROJECT - Q3 FINAL	TOTAL BUDGET	FY19	FY20
Gila-Wellton Mohawk Interstate-8 Crossing Rebuild	7,623		40



Gila-Wellton Mohawk I-8 Crossing Rebuild

Project Status

- The overhead optical (fiber) ground wire installation was damaged by lightning, requiring the contractor to remobilize and repair the fiber line
- These repairs did not result in a significant change to the total budget for the project
- Repairs to the fiber occurred September 2019 and the project will close in fiscal year 2020 on schedule

Identified Risks

- Project is effectively complete and no risks are currently identified

Project Schedule

PROJECT MILESTONE	STATUS	DATE
Seed Funded	Completed	Q4 2016
Approved for Funding	Completed	Q4 2017
Design Completed	Completed	Q1 2018
Construction Mobilization	Completed	Q3 2018
In-Service / Energization	Completed	Q2 2019
Financial Closeout	Projected	Q4 2019

*Revised 10/28/2019



Gila-Wellton Mohawk I-8 Crossing Rebuild



FUNDING TYPE	ORIGINAL BUDGET	BUDGET ADJUSTMENTS	CURRENT BUDGET	COST TO DATE	REMAINING FUNDS	ADDITIONAL FUNDS REQUIRED	NEW BUDGET
Prepayment	\$ 7,247,137	\$ (27,656)	\$ 7,219,481	\$ 7,281,791	\$ (62,310)	\$ 102,346	\$ 7,321,827
Appropriations	\$ 273,517	\$ 27,656	\$ 301,173	\$ 301,173	\$ -	\$ -	\$ 301,173
TOTAL	\$ 7,520,654	\$ -	\$ 7,520,654	\$ 7,582,964	\$ (62,310)	\$ 102,346	\$ 7,623,000

**Cost = All Executions, Obligations, & Commitments Through 9/30/19*

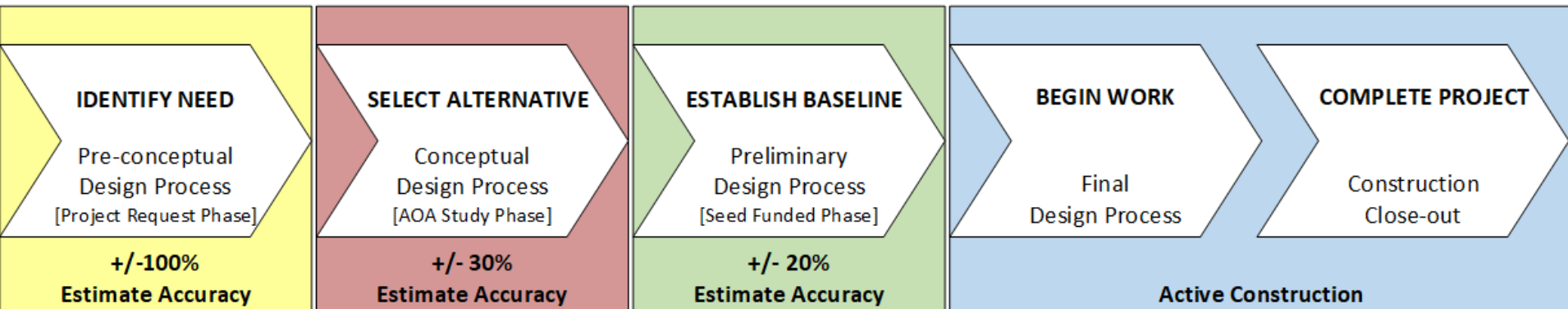


Coolidge Valley Farms 115-kV Rebuild

PROJECT - Q2 DRAFT	TOTAL BUDGET	FY19	FY20	FY21
Coolidge-Valley Farms 115-kV Rebuild	3,350	1,536	719	50



PROJECT - Q3 FINAL	TOTAL BUDGET	FY19	FY20	FY21
Coolidge-Valley Farms 115-kV Rebuild	2,543		932	25



Coolidge Valley Farms 115-kV Rebuild

Project Status

- The Coolidge-Valley Farms construction contract was awarded in July 2019
- Currently the project is on schedule and under budget
- The independent government estimate shared in December 2018 was \$2.33 million dollars and it was awarded at \$1.22 million dollars; with the contractor to provide all of the materials needed to build the project
- WAPA will propose transferring \$807K dollars to the Gila Substation 161kV to 230kV Rebuild Project

Identified Risks

- The transmission line crosses environmentally/culturally sensitive lands but it is not anticipated to have an adverse effect on the schedule or budget at this time

Project Schedule

PROJECT MILESTONE	STATUS	DATE
Seed Funded	Completed	Q1 2018
Approved for Funding	Completed	Q4 2018
Design Completed	Completed	Q3 2019
Construction Mobilization	Projected	Q4 2019
In-Service / Energization	Projected	Q2 2020
Financial Closeout	Projected	Q4 2020

*Revised 10/28/2019



Coolidge Valley Farms 115-kV Rebuild

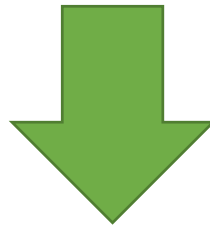


FUNDING TYPE	ORIGINAL BUDGET	BUDGET ADJUSTMENTS	CURRENT BUDGET	COST TO DATE	REMAINING FUNDS	ADDITIONAL FUNDS REQUIRED
Prepayment	\$ 2,305,000	\$ (840,948)	\$ 1,464,052	\$ 507,452	\$ 956,600	\$ -
Appropriations	\$ 1,045,000	\$ 33,948	\$ 1,078,948	\$ 1,078,948	\$ -	\$ -
TOTAL	\$ 3,350,000	\$ (807,000)	\$ 2,543,000	\$ 1,586,400	\$ 956,600	\$ -
<i>*Cost = All Executions, Obligations, & Commitments Through 9/30/19</i>						

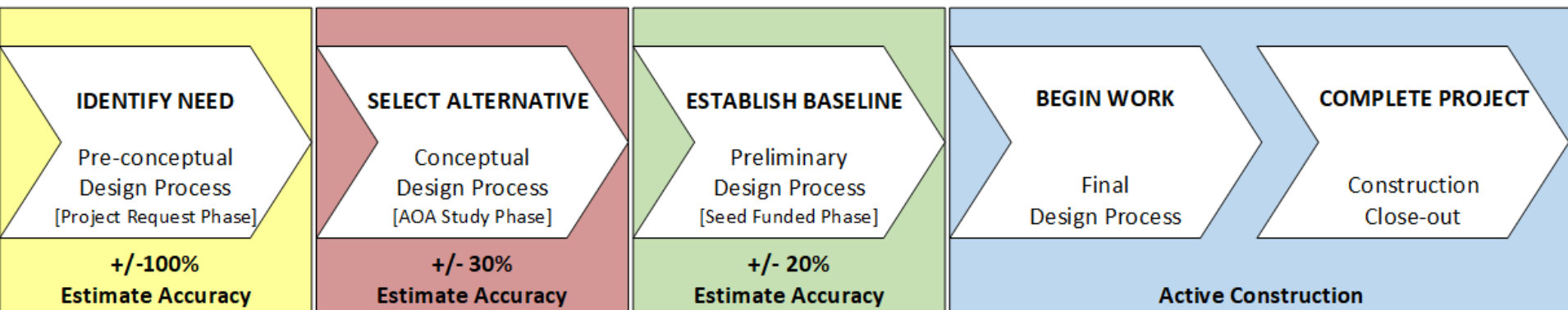


Dome Tap - Gila 161-kV Rebuild

PROJECT - Q2 DRAFT	TOTAL BUDGET	FY19	FY20	FY21
Dome Tap-Gila 161-kV Rebuild	7,630	2,328	1,126	2



PROJECT - Q3 FINAL	TOTAL BUDGET	FY19	FY20	FY21
Dome Tap-Gila 161-kV Rebuild	5,630		2,966	50



Dome Tap - Gila 161-kV Rebuild

Project Status

- Construction on the project is projected to start in October 2019
- The construction contract was awarded at ~\$2M less than the independent government estimate
- WAPA will propose transferring ~\$2M dollars to the Gila Substation 161kV to 230kV Rebuild Project

Identified Risks

- The steel pole manufacturer is experiencing some slight delays in delivery, but overall delays the project are not currently anticipated

Project Schedule

PROJECT MILESTONE	STATUS	DATE
Seed Funded	Completed	Q4 2017
Approved for Funding	Completed	Q4 2018
Design Completed	Completed	Q1 2019
Construction Mobilization	Completed	Q4 2019
In-Service / Energization	Projected	Q2 2020
Financial Closeout	Projected	Q4 2020



Dome Tap - Gila 161-kV Rebuild



FUNDING TYPE	ORIGINAL BUDGET	BUDGET ADJUSTMENTS	CURRENT BUDGET	COST TO DATE	REMAINING FUNDS	ADDITIONAL FUNDS REQUIRED
Prepayment	\$ 7,130,000	\$ (2,000,000)	\$ 5,130,000	\$ 2,253,549	\$ 2,876,451	\$ -
Appropriations	\$ 500,000	\$ -	\$ 500,000	\$ 360,497	\$ 139,503	\$ -
TOTAL	\$ 7,630,000	\$ (2,000,000)	\$ 5,630,000	\$ 2,614,046	\$ 3,015,954	\$ -

**Cost = All Executions, Obligations, & Commitments Through 9/30/19*

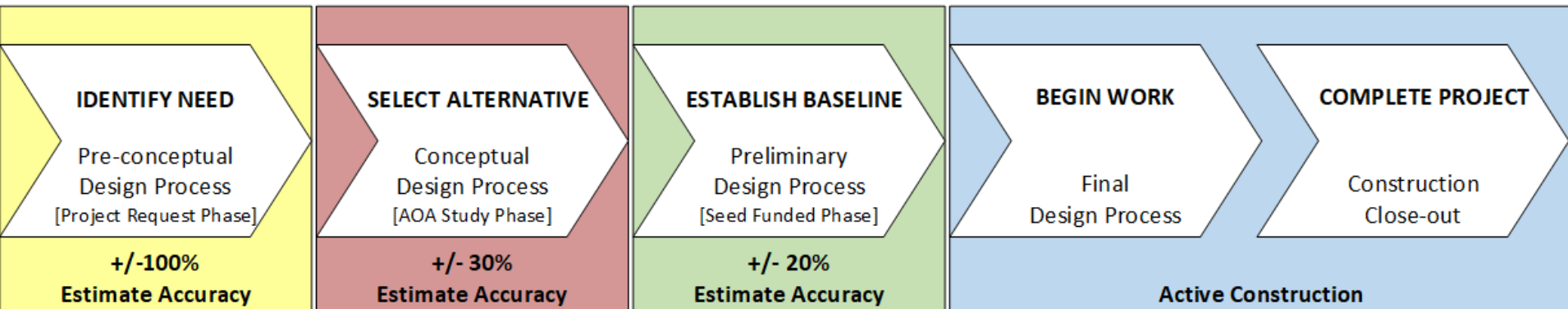


Kofa-Dome Tap 161-kV Rebuild

PROJECT - Q2 DRAFT	TOTAL BUDGET	FY19	FY20	FY21	FY22
Kofa-Dome Tap 161-kV Rebuild	5,511	350	4,000	851	50



PROJECT - Q3 FINAL	TOTAL BUDGET	FY19	FY20	FY21	FY22
Kofa-Dome Tap 161-kV Rebuild	5,138		4,634	130	50



Kofa-Dome Tap 161-kV Rebuild

Project Status

- WAPA completed the design work on the Kofa-Dome Tap 161-kV Rebuild project in March 2019
- The construction and equipment contracts were placed in solicitation in October 2019
- The Gila-Dome Tap project bid for steel poles came in lower than anticipated, it is expected that the Kofa-Dome Tap project will be consistent with that result
- WAPA will propose transferring ~\$192K to the Gila Substation 161kV to 230kV Rebuild Project

Identified Risks

- Potential delays with regards to steel pole deliveries, but impacts to the critical path schedule are not currently anticipated

Project Schedule

PROJECT MILESTONE	STATUS	DATE
Seed Funded	Completed	Q4 2017
Approved for Funding	Completed	Q4 2018
Design Completed	Completed	Q4 2019
Construction Mobilization	Projected	Q4 2020
In-Service / Energization	Projected	Q4 2021
Financial Closeout	Projected	Q2 2022

*Revised 10/28/2019



Kofa-Dome Tap 161-kV Rebuild

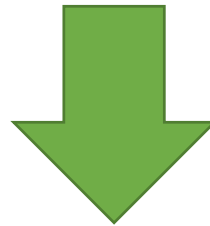


FUNDING TYPE	ORIGINAL BUDGET	BUDGET ADJUSTMENTS	CURRENT BUDGET	COST TO DATE	REMAINING FUNDS	ADDITIONAL FUNDS REQUIRED
Prepayment	\$ 4,830,000	\$ (192,000)	\$ 4,638,000	\$ 17,103	\$ 4,620,897	\$ -
Appropriations	\$ 500,000	\$ -	\$ 500,000	\$ 307,145	\$ 192,855	\$ -
TOTAL	\$ 5,330,000	\$ (192,000)	\$ 5,138,000	\$ 324,248	\$ 4,813,752	\$ -
<i>*Cost = All Executions, Obligations, & Commitments Through 9/30/19</i>						

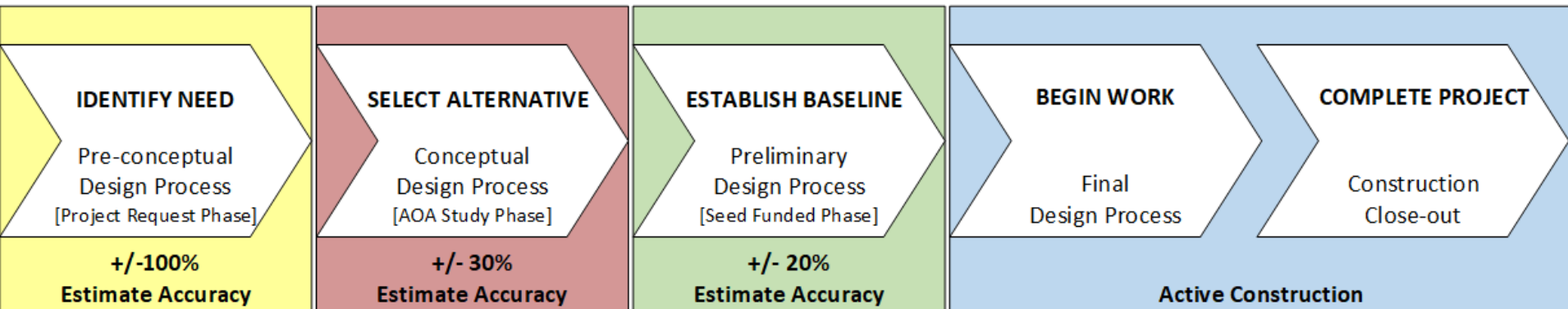


Bouse Upgrade Alternative Study

PROJECT - Q2 DRAFT	TOTAL BUDGET	FY19	FY20	FY21	FY22	FY23	FY24	FY25
Bouse Upgrade Project	45,088	459	1,000	18,128	14,711	835	7,659	1,939



PROJECT - Q3 FINAL	TOTAL BUDGET	FY19	FY20	FY21	FY22	FY23	FY24	FY25	FY26
Bouse Upgrade Project	45,967		1,208	704	9,658	11,493	12,925	7,950	537



Bouse Upgrade Alternative Study

Project Status

- Seed funding from appropriations is being used to evaluate the feasibility of the Bouse Upgrade as a possible alternative to the Parker-Headgate/Parker-Bouse project
- Aerial survey (LiDAR) is in progress and geotechnical investigative work is being planned
- Lands and environmental coordination continues
- Preliminary design work on the Bouse Substation portion of the project is in-progress

Identified Risks

- Existing ROW along the Parker-Bouse 161-kV transmission line is not sufficiently wide for new 230-kV double circuit structures

Conceptual Schedule

PROJECT MILESTONE	STATUS	DATE
Seed Funded	Completed	Q4 2018
Approved for Funding	Projected	Q4 2020
Design Completed	Projected	TBD
Construction Mobilization	Projected	TBD
In-Service / Energization	Projected	Q4 2025
Financial Closeout	Projected	Q3 2026



Bouse Upgrade Alternative Study



FUNDING TYPE	ORIGINAL BUDGET	BUDGET ADJUSTMENTS	CURRENT BUDGET	COST TO DATE	REMAINING FUNDS	ADDITIONAL FUNDS REQUIRED
Prepayment	\$ 601,181	\$ -	\$ 601,181	\$ 601,181	\$ -	\$ -
Appropriations	\$ 890,821	\$ 1,208,000	\$ 2,098,821	\$ 890,821	\$ 1,208,000	\$ -
TOTAL	\$ 1,492,002	\$ 1,208,000	\$ 2,700,002	\$ 1,492,002	\$ 1,208,000	\$ -
<i>*Cost = All Executions, Obligations, & Commitments Through 9/30/19</i>						

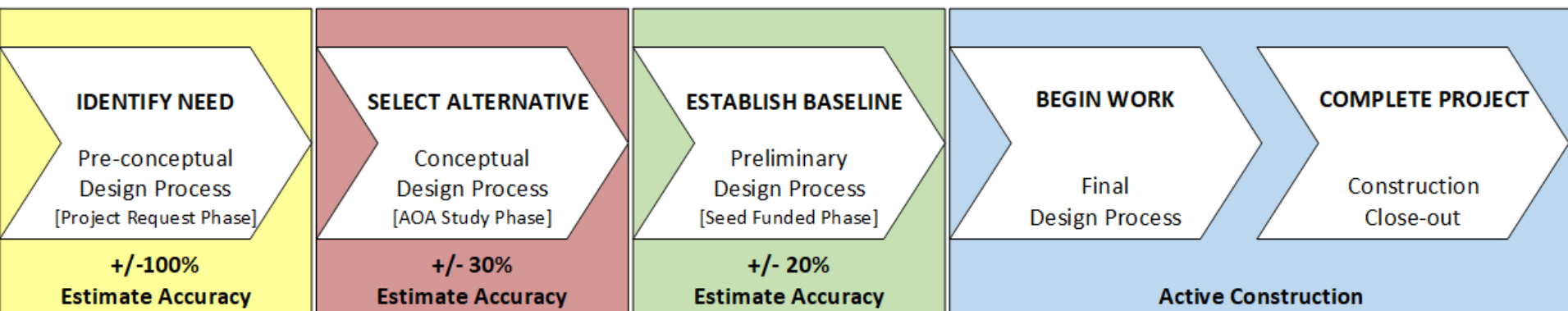


Bouse-Kofa 161-kV Rebuild

PROJECT - Q2 DRAFT	TOTAL BUDGET	FY20	FY21	FY22	FY23	FY24
Bouse-Kofa 161-kV Rebuild Phase-1	13,260	407	7,172	5,132	456	
Bouse-Kofa 161-kV Rebuild Phase-2	13,260	500		7,172	5,132	456



PROJECT - Q3 FINAL	TOTAL BUDGET	FY20	FY21	FY22	FY23	FY24
Bouse-Kofa 161-kV Rebuild	26,520	614	21,095	2,556	1,800	40



Bouse-Kofa 161-kV Rebuild

Project Status

- Project was fully funded with prepayments in December of 2018
- The project will not be conducted in two separate phases as previously considered
- A single construction contract minimizes the complexity of having multiple contracts, multiple procurement actions and reduces overall administration required

Identified Risks

- The project is currently in the process of validating the scope, schedule, and budget as a single project phase in lieu of two phases as previously considered

Conceptual Schedule

PROJECT MILESTONE	STATUS	DATE
Seed Funded	N/A	N/A
Approved for Funding	Completed	Q4 2018
Design Completed	Projected	Q3 2020
Construction Mobilization	Projected	Q4 2021
In-Service / Energization	Projected	Q2 2023
Financial Closeout	Projected	Q1 2024

*Revised 10/28/2019



Bouse-Kofa 161-kV Rebuild



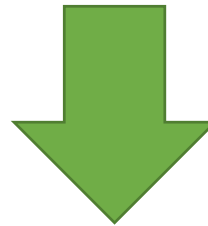
FUNDING TYPE	ORIGINAL BUDGET	BUDGET ADJUSTMENTS	CURRENT BUDGET	COST TO DATE	REMAINING FUNDS	ADDITIONAL FUNDS REQUIRED
Prepayment	\$ 26,520,000	\$ -	\$ 26,520,000	\$ 415,320	\$ 26,104,680	\$ -
Appropriations	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
TOTAL	\$ 26,520,000	\$ -	\$ 26,520,000	\$ 415,320	\$ 26,104,680	\$ -

**Cost = All Executions, Obligations, & Commitments Through 9/30/19*

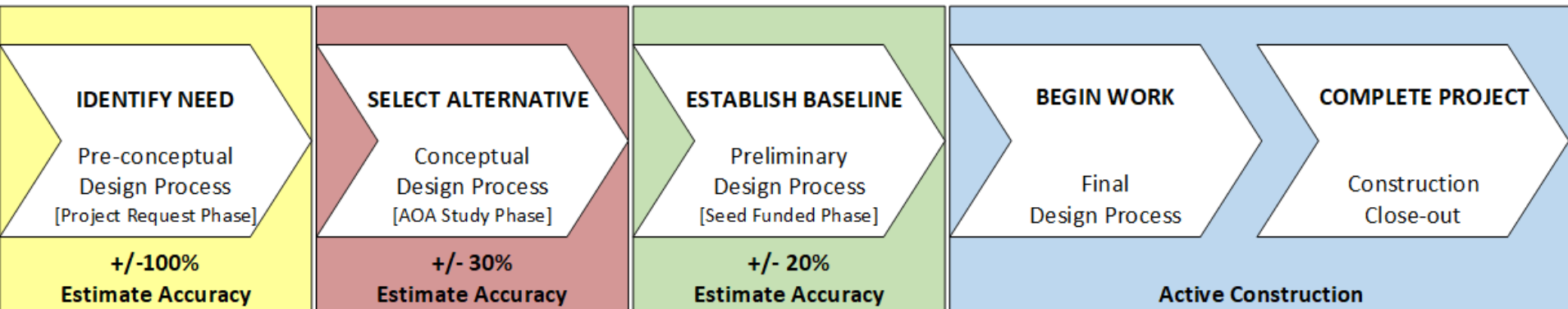


Parker-Blythe 161-kV #2 Rebuild

PROJECT - Q2 DRAFT	TOTAL BUDGET	FY21	FY22	FY23	FY24	FY25	FY26	FY27
Parker-Blythe 161-kV #2 Rebuild Phase-1	18,542		237	17,336	805	164		
Parker-Blythe 161-kV #2 Rebuild Phase-2	18,542		237		17,336	805	164	
Parker-Blythe 161-kV #2 Rebuild Phase-3	18,542		237			17,336	805	164



PROJECT - Q3 FINAL	TOTAL BUDGET	FY21	FY22	FY23	FY24	FY25	FY26	FY27
Parker-Blythe 161-kV #2 Rebuild Phase-1	18,542	250	237	17,086	805	164		
Parker-Blythe 161-kV #2 Rebuild Phase-2	18,542		237		17,336	805	164	
Parker-Blythe 161-kV #2 Rebuild Phase-3	18,542		237			17,336	805	164



Parker-Blythe Wood Pole Health



Parker-Blythe Rebuild Alternative

Initially, the AOA study identified the following preferred alternative, the scope consisted of:

- New conductor, insulators, and hardware
- Upgrade of all wood pole structures to light duty steel H-frame structures
- Installation of steel dead-end structures as required by design
- The addition of optical overhead ground wire (OPGW)
- Repair/reclaim ROW and access roads
- The transmission line was designed using 230-kV* standards/specifications but operated at 161-kV

**230-kV would standardize maintenance and improve availability of replacement/equipment*



Special Working Session

- WAPA held a “Special Working Session” to discuss the Parker-Blythe #2 161-kV Rebuild project on August 15, 2019
- With input from customers, it was determined that the project may not warrant the original scope of work identified in the preferred alternative
- As a result, the ~\$55M rebuild currently on the 10-Year Plan is no longer considered the preferred alternative
- All of the presentation materials for the “Special Working Session” are available at:

<https://www.wapa.gov/regions/DSW/Pages/dsw.aspx>



Special Working Session Outcome

Originally the Parker-Blythe #2 161-kV Rebuild project was scheduled to go to prepayment vote in December 2019 for full funding as the final pivot project:

- Due to the findings shared in the “Special Working Session”, the vote scheduled for December 2019 is postponed
- WAPA will investigate new alternatives such as:
 - Reduce the project scope
 - Rebuild using WAPA crews
- WAPA anticipates a net cost savings in the 10-Year Plan as a result of the new alternatives being considered

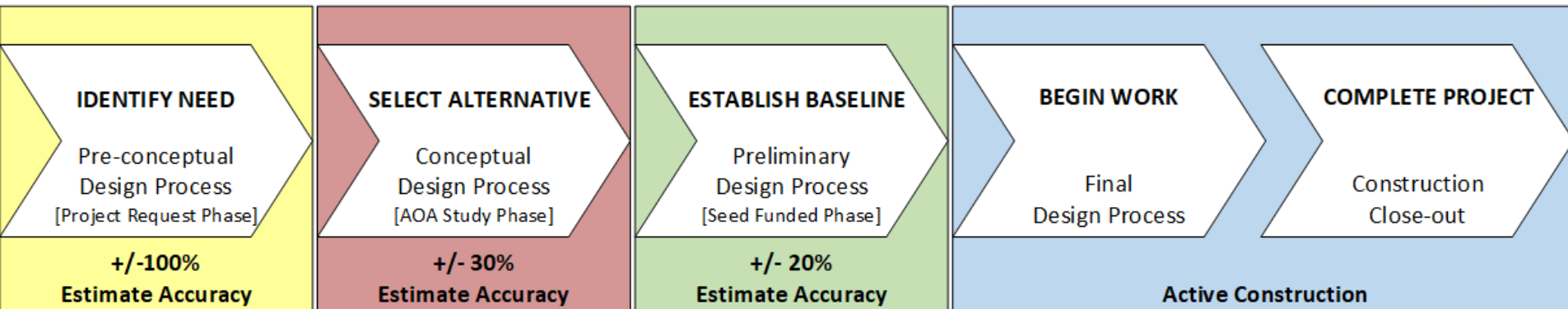


Project Request Phase

PROJECT - Q2 DRAFT	TOTAL BUDGET	FY25	FY26	FY27	FY28	FY29
Parker Substation 161-kV Replacements	16,850	300	8,000	7,700	850	
Blythe-Headgate Rock 161-kV #1 Rebuild	23,900	1,195	9,560	11,711	1,434	
Parker Substation 230-kV Replacements	12,100		600	2,000	9,900	500
Gila Substation 69-kV Rebuild	10,500			800	6,050	3,200
Gila-Knob 161-kV Remaining Rebuild	23,000				800	16,700
Gila Substation 34.5-kV & 14-kV Rebuild	15,250					500



PROJECT - Q3 FINAL	TOTAL BUDGET	FY25	FY26	FY27	FY28	FY29
Parker Substation 161-kV Replacements	16,850	300	100	100	8,000	7,700
Blythe-Headgate Rock 161-kV #1 Rebuild	23,900	1,195	100	100	9,560	11,711
Parker Substation 230-kV Replacements	12,100		600	100	100	2,000
Gila Substation 69-kV Rebuild	10,500			800	100	100
Gila-Knob 161-kV Remaining Rebuild	23,000				800	100
Gila Substation 34.5-kV & 14-kV Rebuild	15,250					500



Pivot Strategy

- The pivot is a strategic one-time shift in the 10-Year Plan process
- The pivot previously planned to spans two 10-Year Plan cycles (two calendar years)
- A successful pivot will now conclude in December 2020 at the prepayment funding meeting to facilitate additional study efforts .
- Upon completion, the 10-Year Plan will be in alignment with the federal budget formulation
- This results in prepayment funding being approved two years in advance of the start of new projects



Seed Funding

PROJECT - Q2 DRAFT	TOTAL BUDGET	FY24	FY25	FY26	FY27	FY28	FY29
Parker Substation 161-kV Replacements	16,850		300	8,000	7,700	850	



PROJECT - Q3 FINAL	TOTAL BUDGET	FY24	FY25	FY26	FY27	FY28	FY29
Parker Substation 161-kV Replacements	16,850		300	100	100	8,000	7,700

- New to the 10-Year Plan Spreadsheet you will see that two years have been inserted into each project's spend plan
- In this example, the AOA will be completed in FY24
- The Seed funding for this project starts in fiscal year 2025
- At the end of the seed funding year, a revalidated project budget will be voted on for full project funding
- Fiscal year 2026-2027 represents the 'pivot' in which the budget is established 2-years in advance.
- These years have limited funding for lands & environmental activities to continue until the project formally kicks off with construction activity in fiscal year 2028

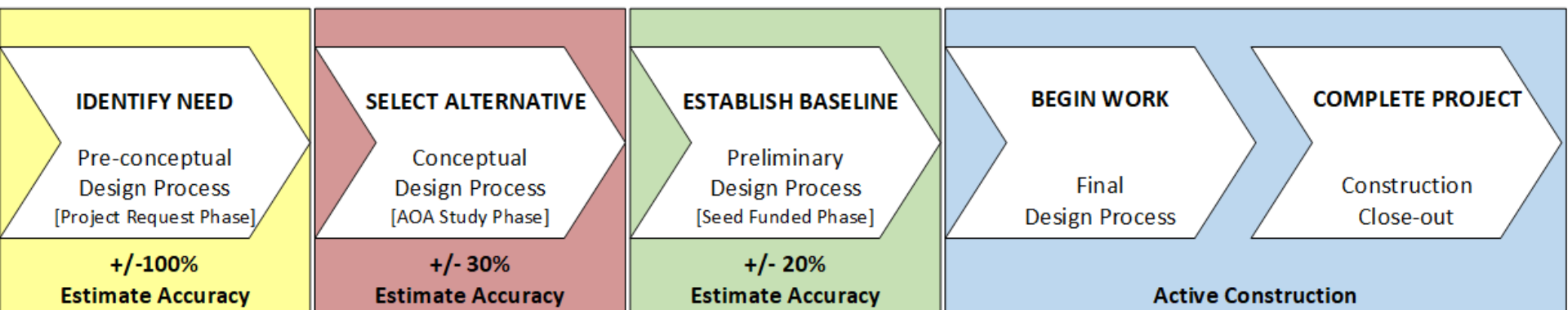


FISCAL YEAR 2020-2029 10-YEAR PLAN



Final 10-Year Plan FY2020-2029

PROJECT	TOTAL BUDGET	FY20	FY21	FY22	FY23	FY24	FY25	FY26	FY27	FY28	FY29
Crossman Peak Microwave Facility	4,525	170	2,534	333							
Gila Substation 161-kV Rebuild	23,873	3,100	25								
Liberty Series Capacitor Bank Replacement	9,835	1,598	25								
Gila-Wellton Mohawk Interstate-8 Crossing Rebuild	7,623	40									
Coolidge-Valley Farms 115-kV Rebuild	2,543	932	25								
Dome Tap-Gila 161-kV Rebuild	5,630	2,966	50								
Kofa-Dome Tap 161-kV Rebuild	5,138	4,634	130	50							
Bouse Upgrade Project	45,967	1,208	704	9,658	11,493	12,925	7,950	537			
Bouse-Kofa 161-kV Rebuild	26,520	614	21,095	2,556	1,800	40					
Parker-Blythe 161-kV #2 Rebuild Phase-1	18,542		250	237	17,086	805	164				
Parker-Blythe 161-kV #2 Rebuild Phase-2	18,542			237		17,336	805	164			
Parker-Blythe 161-kV #2 Rebuild Phase-3	18,542			237			17,336	805	164		
Parker Substation 161-kV Replacements	16,850						300	100	100	8,000	7,700
Blythe-Headgate Rock 161-kV #1 Rebuild	23,900						1,195	100	100	9,560	11,711
Parker Substation 230-kV Replacements	12,100							600	100	100	2,000
Gila Substation 69-kV Rebuild	10,500								800	100	100
Gila-Knob 161-kV Remaining Rebuild	23,000									800	100
Gila Substation 34.5-kV & 14-kV Rebuild	15,250										500
FISCAL YEAR (FY) TOTALS		15,262	24,838	13,308	30,379	31,106	27,750	2,306	1,264	18,560	22,111



10-YEAR PLAN RATE IMPACT



Rates Overview/Design

- Parker-Davis Project and Intertie rates and charges are forward looking, meaning they are determined based on projections of future costs
- Expenses include O&M, PPW, and repayment of capital
- Repayment of capital includes existing unpaid investments (assets) as well as projections of future investments
- Repayment of capital is independent of how the investments were or will be funded
- All investments are repaid whether they are funded by appropriations or alternatively financed



Rate Impacts

- Projects become repayable the year after placed in service
- Project costs include Interest During Construction
- Different repayment methodologies
 - Parker-Davis Project: 5-year rate window using an average of future capital costs
 - Intertie: 50-year rate window, pinch-point (highest year of costs)



Parker-Davis Project Rate Impacts

FY20 Rate without Future Capital

\$ 19.20 / kW-Year

\$ 1.60 / kW-Month

PROJECT	In Service Date	Interest Rate	FY20	FY21	FY22	FY23	FY24	FY25	FY26	FY27	FY28	FY29
Prior Year Projects (Pending Closeout)	2020 +	various	\$ 0.05	\$ 0.13	\$ 0.13	\$ 0.14	\$ 0.14	\$ 0.14	\$ 0.14	\$ 0.14	\$ 0.14	\$ 0.14
Capital O&M	2020 +	various	\$ 0.09	\$ 0.22	\$ 0.35	\$ 0.45	\$ 0.56	\$ 0.67	\$ 0.78	\$ 0.88	\$ 0.99	\$ 1.05
Prior Year Projects (Pending Closeout)/Capital O&M	2020 +	various	\$ 0.14	\$ 0.35	\$ 0.48	\$ 0.58	\$ 0.70	\$ 0.80	\$ 0.91	\$ 1.02	\$ 1.12	\$ 1.18
Tucson Substation Rebuild	2019	3.000%	\$ 0.17	\$ 0.17	\$ 0.17	\$ 0.17	\$ 0.17	\$ 0.17	\$ 0.17	\$ 0.17	\$ 0.17	\$ 0.17
Gila-Knob 161-kV T-Line Reroute	2019	3.000%	\$ 0.06	\$ 0.06	\$ 0.06	\$ 0.06	\$ 0.06	\$ 0.06	\$ 0.06	\$ 0.06	\$ 0.06	\$ 0.06
Black Point Mesa Reroute	2019	3.000%	\$ 0.04	\$ 0.04	\$ 0.04	\$ 0.04	\$ 0.04	\$ 0.04	\$ 0.04	\$ 0.04	\$ 0.04	\$ 0.04
Parker-Davis Facility Rating Year 2	2019	3.000%	\$ 0.13	\$ 0.13	\$ 0.13	\$ 0.13	\$ 0.13	\$ 0.13	\$ 0.13	\$ 0.13	\$ 0.13	\$ 0.13
Gila-Wellton Mohawk Interstate-8 Crossing Rebuild	2020	3.000%		\$ 0.13	\$ 0.13	\$ 0.13	\$ 0.13	\$ 0.13	\$ 0.13	\$ 0.13	\$ 0.13	\$ 0.13
Gila Substation 161-kV Rebuild	2021	3.000%			\$ 0.41	\$ 0.41	\$ 0.41	\$ 0.41	\$ 0.41	\$ 0.41	\$ 0.41	\$ 0.41
Dome Tap-Gila 161-kV Rebuild	2021	3.000%			\$ 0.09	\$ 0.09	\$ 0.09	\$ 0.09	\$ 0.09	\$ 0.09	\$ 0.09	\$ 0.09
Coolidge-Valley Farms 115-kV Rebuild	2021	3.000%			\$ 0.04	\$ 0.04	\$ 0.04	\$ 0.04	\$ 0.04	\$ 0.04	\$ 0.04	\$ 0.04
Crossman Peak Microwave Facility	2022	3.000%				\$ 0.08	\$ 0.08	\$ 0.08	\$ 0.08	\$ 0.08	\$ 0.08	\$ 0.08
Kofa-Dome Tap 161-kV Rebuild	2022	3.000%				\$ 0.09	\$ 0.09	\$ 0.09	\$ 0.09	\$ 0.09	\$ 0.09	\$ 0.09
Bouse-Kofa 161-kV Rebuild	2024	3.125%						\$ 0.47	\$ 0.47	\$ 0.47	\$ 0.47	\$ 0.47
Bouse Upgrade Project	2026	3.000%								\$ 0.80	\$ 0.80	\$ 0.80
Parker-Blythe 161-kV #2 Rebuild Phase-1	2025	3.375%							\$ 0.34	\$ 0.34	\$ 0.34	\$ 0.34
Parker-Blythe 161-kV #2 Rebuild Phase-2	2026	3.375%								\$ 0.34	\$ 0.34	\$ 0.34
Parker-Blythe 161-kV #2 Rebuild Phase-3	2027	3.375%									\$ 0.34	\$ 0.34
Parker Substation 161-kV Replacements	2030	3.625%										
Blythe-Headgate Rock161-kV #1 Rebuild	2030	3.625%										
Parker Substation 230-kV Replacements	2031	3.625%										
Gila Substation 69-kV Rebuild	2032	3.625%										
Gila-Knob 161-kV Remaining Rebuild	2033	3.625%										
Gila Substation 34.5-kV & 14-kV Rebuild	2034	3.625%										
Total /kW-Year	-		\$ 0.53	\$ 0.87	\$ 1.54	\$ 1.80	\$ 1.92	\$ 2.49	\$ 2.94	\$ 4.17	\$ 4.61	\$ 4.67
Total /kW-Month			\$ 0.04	\$ 0.07	\$ 0.13	\$ 0.15	\$ 0.16	\$ 0.21	\$ 0.24	\$ 0.35	\$ 0.38	\$ 0.39

P-DP 5-year Rate Window



Intertie & Parker-Davis Projects 10-Year Plan Meeting

See Section 8.0 of Handout Booklet

Intertie Rate Impacts

PROJECT	In Service Date	Interest Rate	FY20	FY21	FY22	FY23	FY24	FY25	FY26	FY27	FY28	FY29
Prior Year Projects (Pending Closeout)/Capital O&M	2020 +	3.000%	\$ 0.02	\$ 0.13	\$ 0.25	\$ 0.31	\$ 0.37	\$ 0.42	\$ 0.48	\$ 0.53	\$ 0.59	\$ 0.62
Liberty Series Capacitor Bank Replacement	2021	3.000%			\$ 0.31	\$ 0.31	\$ 0.31	\$ 0.31	\$ 0.31	\$ 0.31	\$ 0.31	\$ 0.31
Total /kW-Year			\$ 0.02	\$ 0.13	\$ 0.56	\$ 0.63	\$ 0.68	\$ 0.74	\$ 0.79	\$ 0.85	\$ 0.90	\$ 0.93
Total /kW-Month			\$ 0.00	\$ 0.01	\$ 0.05	\$ 0.05	\$ 0.06	\$ 0.06	\$ 0.07	\$ 0.07	\$ 0.08	\$ 0.08



PREPAYMENT VOTE PREVIEW



Prepayment Vote

- The following slides detail the anticipated prepayment vote schedule, which will be held December 10th, 2019
- The seed funded Bouse Upgrade project scheduled to go to vote December 10, 2019, is being delayed an additional year to allow additional engagement with stakeholders while the preliminary design work and independent government estimate are developed
- The Parker-Blythe #2 161-kV Rebuild project phase 1, 2, and 3, scheduled to go to vote December 10, 2019, is delayed to re-evaluate for potential cost savings through a reduced scope of work
- No new projects will be voted on in 2019



Prepayment Vote

Gila Substation 161kV to 230kV Rebuild Additional Prepayment Funding

PROJECT	FUNDS AVAILABLE FOR TRANSFER
Liberty Series Capacitor Bank Replacement	\$ 537,000
Coolidge-Valley Farms 115-kV Rebuild	\$ 807,000
Gila-Dome Tap 161-kV Rebuild	\$ 2,000,000
Kofa-Dome Tap 161-kV Rebuild	\$ 192,000
TOTAL AVAILABLE FUNDS FOR TRANSFER	\$ 3,536,000
ADDITIONAL FUNDS REQUIRED	\$ 4,878,500
TOTAL FUNDS AVAILABLE FOR TRANSFER	\$ 3,536,000
NET INCREASE IN PREPAYMENTS	\$ 1,342,500

- The Gila Substation 161kV to 230kV Rebuild project requires an additional \$4,878,500 in prepayments
- A total of \$3,536,000 will be transferred from other active construction projects that are projected to be under budget
- WAPA is requesting a net increase of \$1,342,500 in additional prepayments



Questions?

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THANK YOU

